Claims

1.   A targeting molecule capable of specifically binding to a basolateral factor associated with an epithelial surface and causing the internalization of an imaging agent linked thereto, wherein the targeting molecule is not full length dimeric IgA.

2.   A targeting molecule linked to at least one imaging agent, wherein said targeting molecule comprises a polypeptide that:
            (a)   forms a closed covalent loop; and
            (b)   contains at least three peptide domains having β-sheet character, each of the domains being separated by domains lacking β-sheet character;
            wherein said targeting molecule is linked to at least one imaging agent by a substrate for an intracellular or extracellular enzyme associated with an epithelial barrier.

3.   A targeting molecule according to claim 2, wherein said enzyme is selected from the group consisting of proteases, glycosidases, phospholipases, esterases, hydrolases and nucleases.

4.   A targeting molecule linked to at least one imaging agent, wherein said targeting molecule comprises a polypeptide that:
            (a)   forms a closed covalent loop; and
            (b)   contains at least three peptide domains having β-sheet character, each of the domains being separated by domains lacking β-sheet character;
            wherein said targeting molecule is linked to at least one imaging agent through a side chain of amino acids in an antibody combining site.

5.   A targeting molecule linked to at least one imaging agent, wherein said targeting molecule comprises a polypeptide that:
            (a)   forms a closed covalent loop; and
            (b)   contains at least three peptide domains having β-sheet character, each of the domains being separated by domains lacking β-sheet character;
            wherein the imaging agent is not naturally associated with the targeting molecule, and wherein the imaging agent is not iodine.

6.   A targeting molecule according to claim 5, wherein said imaging agent is selected from the group consisting of metals, radioactive isotopes, radioopaque agents, radiolucent agents, contrast agents, dyes and enzymes.